CHICAGO USERS GROUP PRESENTS

CHICAGO TIMES

NEWSLETTER OF THE CHICAGO TI-99/4A USERS GROUP

TIME TO RENEW YOUR MEMBERSHIP

SEPT 30, 1986
EDITOR: Carole Goldstein

CHAMPIONS

THE OCTOBER MEETING- - -
will be held on Saturday OCT. 4, 1986 from 1:00 to 3:00 in the Fireside Lounge a Triton College. The meeting will feature a demonstration of the GRAM CARD from MECHATRONICS.

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ARTWORK BY BUZZ KRANTZ

BULLETINS:

As far as I know the Beginners SIG will meet shortly after the meeting.

If anyone needs lithium battery holders for building supercarts, they will be available at the meeting. See Rich Klein.

MEETING DATES FOR THIS COMING YEAR ARE AS FOLLOWS:

OCT 4

NOV 1 (TI FAIRE)

DEC 6

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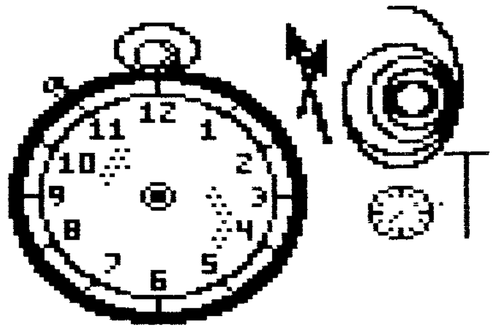


THE DISASSEMBLY

Dave Wakely

The last meeting; help for the technoklutz; the method to our madness; Faire plans in high gear; Other THings:

At first glance it looked as though the presentations at the September meeting were going to be just some unconnected random demonstrations. But as soon as I had settled in I found myself asking why the guy in the suit conducting the demonstration of the "Super Duper Cart" and the RAMdisk looked so familiar. Then I figured it out. I would like a show of hands on this -- how many of you remembered that George Bowman is the same guy who demonstrated his Missing Link/Joyprint module to our group at the February, 1984 meeting? Give yourself 10 points extra credit if you also remembered that this was the meeting where we first had copies of TI Forth available shortly after receiving it from Texas Instruments. George is now with Midwest Engineering Consultants in Vernon Hills (his own business, I believe). The RAMdisk he was demonstrating was the New Horizon User Group model, and George will custom build you one for a very reasonable sum if you contact him at (312)362-9034.

We also coaxed Hank Ellermann into doing a demonstration of the "Super Cart" module. How does a "Super Cart" differ from a "Super Duper Cart"? As near as I can tell (or was paying attention), both have 8K RAM inserted into a sacrificed TI module of the later (GRAM) rather than earlier (GROM) type, and also have a E/A chip, allowing loading and running of machine code. The "duper" version apparently also has a Mini-Mem chip and is similarly battery backed. Check with Mr. Bowman on the availability of the "Super Duper Cart". Plans for building your own "Super Cart" have appeared in several places, and I believe there is a disk in our library which gives detailed directions. If you are as klutzy or unsure of your soldering skills as I am, however, you may want to consider just purchasing one.

PARDON MY VDPs: Also demonstrated at the meeting was the new Funlwriter V3.3, more on which later. When I thought about these various presentations afterwards, it occured to me there had been an unplanned "theme" or two to the September meeting after all. For those of you who don't come to the meetings and who don't keep up with these things, by now parts of this column and perhaps technical talk in general is largely unreadable. I will therefore attempt to drop back and punt you some explanations, as there really ARE some TI novices left out there who have not yet attempted to disassemble their DSRs. Please recall that this column is written by a "user" not a "programmer". This will be either a blessing or a curse, depending on your own particular needs. Most of what follows, then, is for the benefit of those newer members (yes, we still get them!) who have not been able to keep up with 99/4A developements

since TI left us in 1983, or for those who have been members, but would describe themselves as "the non-technically inclined".

Short of stuffing a cartridge into the port and using its contents, what options does the 99/4A present the user? Answer: The BASIC or Extended BASIC prompt (e.g. > ** READY **). From here it is entirely the user's responsibility to select, find, load, and run a program. Is the program I want in BASIC?, Extended BASIC?, Forth?, Assembly? If the later is it in "Object Code" format or "Program Image" format? All of these will determine how, and if, a program will load and run, and this doesn't even consider the ever popular, "And what disk is it on?" problem. There are any number of solutions to these dilemmas.

One of these is the now ubiquitous "Auto LOAD program". These programs are basically "menus" which present on screen a list of all the programs on the disk and allow you, typically with one key press, to load and run that program. You probably have one or more of these. One of my only programming claims to fame was modifying an early autoload program which appeared in the old 99er magazine but which would run only with the "old" version of Extended BASIC (pre-1981). I somehow managed to figure out how to modify it for the present version and sent the fix in (they published it). I later modified the screen display and ran the program in the first group "Super Summmer Issue" newsletter. Now these Autoload programs are incredibly fancy paged displays which allow you to find, load and run any program on the disk, as well as delete files and sometimes even to read files. The problem is that you are usually limited to programs which run in Extended BASIC, and you must put a copy of this program on every disk you want to be able to autorun. There are now some exceptions to this, such as programs which stay "memory resident", but I was going to keep this simple, wasn't I? In any event, an autoload program, when named "LOAD" and stored on a disk started under Extended BASIC, presents one alternative to the blank prompt, and there are several good ones in our group library.

Funlwriter could be described as an enhanced autoloader, but that does it no justice whatsoever! It is really a self-contained productivity package on a disk, and maybe all you will need to run your 99/4A. A good number of our members probably have, or have heard, that it is no longer necessary to have the TI-Writer cartridge to run the TI- Writer word processor. About one to two years ago, it seems to me, Tom Knight released his "TK Writer", essentially a program which will load and run the TI Writer software from Extended BASIC. This was right around the time that TI also released to user groups an updated version of TI Writer, essentially putting it in the public domain. Since then there have been several other "shortcuts" to TI Writer, and one of them is via Funlwriter.

In addition to this function, however, Funlwriter does a lot more. The program greets you with a menu of choices. For example, it also has a complete Editor/Assembler set of files for editing or writing TI Assembly language, although the Editor included seems better than TI's original. Another option is the DM1000 program, a Disk Manager on disk which has been acclaimed as one of the best around. There is even a link, or, for lack of a better term, a "blank space" in the loader for you to insert your favorite communication program. Perhaps of primary benefit, however, is a sub- section which will allow you to load and run either E/A D/F 80 ("Object Code"), or Program Image format machine code (Editor/Assembler option 5). Remember that all of this capability is loaded from Extended BASIC, and that with it and this disk you can "retire" several cartridges

from use. Finding some of the functions on some of the menus can take some looking, however. I am told that the documentation, when printed out, takes up over 40 pages, but you can use Funlwriter almost immediately even before discovering its finer points. Also, the Funlwriter disk must be present in your disk drive for the functions to be available. This means that your TI-Writer files, for example, must be in your other disk drive, assuming you have one. Still, Funlwriter is clearly superior to a plain "Autoload" program. The new Funlwriter V3.3 is now in our library.

I would also note that if someone comes up with some graphics icons and a mouse, trackball or joystick interface for this program, we could have a crude Mcintosh-like user interface here. I can imagine a small picture of a telephone that when I point to it and press the fire button loads "Mass Transfer", or a typewriter icon that loads TI-Writer (or an image of a small front-end loader that loads Assembly language files?), etc.

The new "Super Carts" (Space, Duper and plain) have yet another advantage. These are plug in modules (typically old TI game modules which have been opened up and changed) which contain the same chip that is in the E/A cartridge, and additionally have 8K of battery-backed RAM. This allows for things like extra choices on the start- up menu screen and autoloading of programs. Not even a disk is needed if the program is stored in the 8K space, but of course disk access is still possible. Some TI users like to cram the 8K with their favorite utilities. Also, I am told that with appropriate software some "unusual" things can be done with it that previously were only possible with something like a much more expensive Gram Kracker. In all, the various Super Carts are a higher power way to get around the TI operating system limitations, but with minimal cost.

Another way is with a RAM disk such as the New Horizons User Group model demonstrated at the meeting. A RAM disk is what it sounds like. It operates like a disk, but it is actually RAM. Programs and files load sometimes literally "in a flash". It is typically a card which fits in the Expansion Box. The problem with some RAM disks is that whatever you store on them goes away when you turn off the power to the computer. Not the New Horizons RD, which has its own battery to retain whatever you put on it. There are various switch settings which will even allow you to set it up as drive #1, on which you can put a program called LOAD, which, when invoked under Extended BASIC (is this beginning to sound familiar?), will automatically load and run that program. Could you put Funlwriter 3.3 on the RAM disk and load it from there, freeing up your physical disk drive? Absolutely, and this combination is very powerful indeed. You could go from turning on the console to being in the TI Writer editor in a matter of seconds, the exact time determined mostly by the speed of your fingers.

So, what's this about a "theme" to our September meeting? Technically, each of the products represents a way to enhance the "friendliness" of the TI operating system for the user, or, more precisely, to "customize" it to individual needs, with varying "cost versus power" considerations. With these devices your mass merchandised "computer for the people" can now become truly your own "personal" computer, doing what you want it to do with a minimum of computer technical knowledge. And, when you think about it, nothing like any of the programs or hardware shown at the meeting was ever offered or perhaps even considered by Texas Instruments. Overall, they show how far the users have come without TI over the past three years. And you thought we didn't know what we were doing up there at the meeting? Ha!

FAIRE VOICES: No doubt Faire chairperson Sandy Bartels has some info in this issue about the Faire, but I want to report that we were able to snare Clint Pulley, author of the "C99" language as the featured speaker this year. He will be speaking on: "C99: Past, Present, and Future". The other presenters at the Faire will mostly be doing new product demonstrations. This will include Myarc, Asgard, and T.A.P.E. (showing Mechatronics products). We can't really call these presentations "speeches" since they are basically product pitches. On the other hand, there's nothing wrong with that, since some of these look to be terrific products! We will also be scheduling one or two tutorials from our own Al Stump and Hank Ellermann. Al is in the process of preparing a video tape on "Maintenance of your TI", including a console cleaning session. He will then be present to narrate the tape and answer questions. All of these will be held in the Fireside Lounge, while the vendors will once again be in the Ironwood Room. See Sandy's article for more Faire details.

SubrouTInes: I don't know how, but Hank Ellermann has talked T.A.P.E. of California out of a Mechatronics GRAM- Karte unit to demonstrate at our next meeting. It has been described as comparable to a GRAM Kracker. We will also be doing the usual Library demos...And speaking of Mechatronics, rumor has it they are looking for an RGB monitor to show a working 80-column card!...Was that a SUPER Summer Issue, or was that a Super Summer Issue? I have run out of superlatives to describe the work Carole puts into this publication...Expect all the Faire hoopla to be knee deep by the next issue. Last year John Behnke's newsletter cover graphic showed the exact spot in the universe where the Faire would be held. How is Buzz going to top THAT?...The group's founding anniversary is coming up soon (what, six years, already??), as well as the anniversary of the "Black Friday" TI pullout. Expect much of this column next time to be a look back at the group's past. Preview: Two years ago this week this newsletter was the "Special Cubputer Edition". Texas Instruments' pullout cause a grown man to cry? Nah, only the Cubbies can do that!

TRADING TIMES

Doug Bennett has an entire system to sell. It consists of an Expansion Box, RS232, Disk Controller and drive, 32K card and assorted cartridges. He is asking $400 plus an additional $30 for the console. You can reach Doug at 312-459-9131 after 6:30pm.

Walter Szulczewski of 2903 E. 172nd St. in Lansing, Il 60438 also has a system to sell. He doesn't give an asking price but does say he is willing to sell for very reasonable prices. You can reach him at 312-474-1822.

BASICALLY YOURS

Rich Klein

Welcome back. Summer's over once again and it's time to blow the dust off our systems and jump start them. I'm sure that most of us haven't given our units much use in the last few months. But, with summer winding down, and the prospect of cold winter days looming in the not too distant future, it would seem that something is needed to fill the void that the passing of summer and its activities has left us. That's where your computer comes in. Winter would seem to be the best time to pursue more intellectual activities.

To open this seasons round of columns, I would like to address a situation that most of us encounter from time to time. That is when your system crashes and you lose valuable data as a result of it. If all your data was in memory, then nothing much can be done. But if you were writing to disk, and your file was not properly closed, then this column may be of help. Here is a letter from one of our members in Colorado (non-attending, I assume).

I am interested in finding out the answer to a question that has bothered me ever since I lost a 150 record file in a program I was using called Disk Card File, written by Christopher Flynn, that appeared in Compute's Extended Basic Home Applications.

I had been recording the location of TI-99/4A hardware and software product reviews with this program and got to record 150 when the program crashed and the computer told me I had a bad subscript error in the DIMension statement for the index array. Through some stroke of bad luck the file did not "close" even though BYE, RUN, LIST and all the other statements that automatically close open files are present in the operating system. I don't remember which one I used unfortunately.

At any rate, when I altered the index array to read 151,2 and 151 instead of 150,2 and 150, and then tried to recover the file from disk I got an error message that told me the file had never been "closed" thus it could not be recalled. I am assuming the message that the message was referring to the index file since the actual records are written to the disk in this program as they are entered. So th problem as I view it is that the index file was unclosed and the records on disk that are referenced by index number could not be accessed because the index file could not be accessed.

My question is this;

What information is written (and where) on disk that tells the computer whether a program or file is open or closed? Had I known this at the time I am sure that I could have altered some sector information to recover my lost index file. If you can help I would appreciate seeing your answer in a future Chicago TImes.

Thanks very much.

B.G.,#468, Grand Junction, CO.

When you "OPEN" a file on disk and you hear the drive running that first time, what is happening is that the first available sector on the disk is set up as a File Descriptor Record (FDR) and the number of this sector is placed in the File Descriptor Index Record (in Sector 1) in alphabetical order. The FDR, at this point, contains only the name of the file and no other information about the file. The file type, what sectors it occupies, record size, etc. is contained in console memory until the file is closed, at which point it is written to disk. Sector 0 contains the Disk Volume info (which we are not concerned with) and the Allocation Bit Map Table. This table indicates which sectors are used on the disk. This table also is not updated until the file is closed. A copy of the bit map and FDR are kept in the bottom of VDP RAM and updated internally as information is written to disk. Then, when the file is "closed", these two sectors are written to disk and the file is "CLOSED".

To summarize, all the information you entered is on the disk, with the exception of the info entered from the last disk access up to the "crash". This could be as many as 256 bytes. The reason for this figure is that the TI DOS writes bytes to disk in 256 byte blocks. When the file is closed, the remaining information is written to disk. Since the II always writes 256 bytes to disk, if the remaining info is less than 256 bytes, then the remainder of the previous block is written along with the final bytes. To make sure the previous info is not mixed up with the current info, each block of info is terminated with an >FF or CHR$(255) and the last byte in the last sector used is pointed to by a value in the FDR (if the file was closed, of course).

The sectors used are indicated in the FDR as a series of Data Chain Pointers indicating the starting sector of this block of info and an offset indicating how many sectors are used including this block. This can be a difficult concept to grasp, since the offset does not indicate the length of a Data block, but total offset of all blocks up to this point.

Why indicate data blocks, anyway? Because, when a disk is fresh, data can be stored in one continuous block and all we need to know is where it starts and how long it is. When there are many files on a disk, there may not be a section on the disk large enough to hold the entire file in one piece. When this is the case, then the bit map (sector 0) is checked and information is written to the next available sector and a new data chain pointer is created to reflect the new sectors involved. Mind you, this all takes place in VDP memory and is NOT written to disk until the file is closed.

How can a file be recovered, if the FDR is all but nonexistent and the bit map is not adjusted? The first thing to be sure of is, that since the Allocation Bit Map has not been adjusted to reflect the sectors just written to, is that NOTHING be written to the disk until the file has been fixed. If the disk is written to , the exact same sectors you just wrote to will be reselected and written to again, causing your hard earned data to go silently away never to be seen again. Once data has been overwritten, it can never be recovered.

Assuming the data on disk is still intact, it can be recovered by using a disk sector editor. There several good Editors out there, including one from our own group's Todd Kaplan. I have Advanced Diagnostics from Miller's Graphics. A calculator capable of HEX, DECIMAL and BINARY conversions is helpful. A piece of paper and writing instrument are musts. Also, 32K and whatever module the sector editor can load in will be necessary (usually Editor Assembler, Minimem, or Extended Basic).

Before we get started, it would help to know that most disk sector editors have two display modes; ASCII and HEXADECIMAL. It is very helpful to use both, although you can get by with just HEX. You would have to convert ASCII characters to their hexadecimal representation and vice-versa. Let's do it:

1. Load sector editor following directions.

2. Catalog disk with bad file on it. Since the FDR has been started with a name on it and the File descriptor index (sector 1) has its location, it will show up on a disk directory.

3. Count from the beginning of the directory down to your file. Since the files are alphebetized, the location of the file descriptor for your file will be in the same order on sector 1 (FDIR). Write down the place number of your filename in the directory listing.

4. Bring up sector 1 for display on your screen (hex display). Notice the four digit hexadecimal numbers. These two byte values indicate the sector location for each of the filenames you saw when you catalogued the disk. Since they are in the same order as the disk directory you saw, if you count the four digit entries from the beginning until you reach the number you wrote down, the value at that location will indicate what sector your File Descriptor record is on. Write that number down.

5. The next thing to do is find your actual data. If your file was opened as a DISPLAY type file, then you should have no problem finding your data; assuming you know what you entered, of course. If your file was set up as an INTERNAL type file, then you should have no problems if you entered words and not just numbers. If you entered numbers, then I suggest you read up on RADIX 100 notation Pg. III-13 Basic Reference Manual. In INTERNAL format, text appears pretty much as entered, but numbers bear absolutely no resemblance to the way they were entered. If its an INTERNAL number file, it will be extremely difficult to recognize your data. We'll proceed on the assumption that your data is text or a DISPLAY type file. Scan through the sectors and make a note of any sectors you see your data on. We'll use this info to (re-)build the FDR.

6. When you get to the last sector on the disk that you find your data on, skim through the sector until you see the first >FF (HEX display, of course). This is the end of the file marker. Write down the byte location of this marker.

7. Next, let's use the information gathered on the sectors used to adjust the Allocation Bit Map. The Bit Map is located on sector zero. It starts at Byte 56 and continues to Byte 100 if you've got SS/SD; 145 for SS/DD or DS/SD; and 235 for DS/DD. Each Byte in the Bit Map represents the status of eight sectors on the disk. This is because each byte of the Bit Map contains eight bits, or BInary digITs. Each BIT represents the status of one sector on your disk. Since a binary digit can be represented by a

zero or a one, a zero indicates the sector it represents is unused and a one indicates it is in use.

To find the status of any given sector, divide the sector in question by eight. Add 56 to the resulting value. The Integer portion of the result is the byte number in the bit map, and if you multiply the fractional portion of the result by eight, you will get the bit position for your sector in that byte. Read the value at that byte and enter it into your calculator. Next, convert the number to BINARY and read a one or a zero in the bit position (rightmost is bit position zero indicating units and increasing to the left). You will see a zero if it is a sector that your "lost" data is on or if it is an unused sector. If you want to place a one in that position to indicate the sector used, simply add or "OR" that Binary value to the present one on your calculator. Then convert that value back to HEXADECIMAL and write it to the disk.

```
Example: Bin. 1101 1111   Hex. DF
          OR   10 0000        20
               ---------      --
               1111 1111      FF
```

--NOTE: Some and probably most sector editors require that you "EDIT" a sector and then "WRITE" that sector to disk in two separate operations to prevent accidental erasure of valuable data. See the documentation that should have been provided with your Editor program.--

8. Once you have updated the bit map, you can rest easy. Your data won't be lost if you write any thing else to the disk from this point on. The next thing to do is update the File Descriptor Record for your file. The file type and record length and data cluster pointers need to be established.

Let's do the easy part first and set up our file type and related info. We'll go byte by byte and explain each as we go along. We'll also examine our possible options for each byte.

BYTES 00-09 Filename. If filename is less than ten characters in length, the remaining bytes are filled in with space characters (Hex 20, CHR$(32))

BYTES 10-11 Reserved. All zeros.

BYTE 12 File Status.

HEX
- 00 = DISPLAY/FIXED
- 01 = PROGRAM
- 02 = INTERNAL/FIXED
- 80 = DISPLAY/VARIABLE
- 82 = INTERNAL/VARIABLE

Write protected files have Hex 08 added to them.

BYTE 13 Maximum records per sector. 256 divided by record length. Convert to hex and place here.

BYTES 14-15 Number of sectors used. Count your sectors found and place hexadecimal result here. This is the number you would see on a disk directory, minus one because this count does not include this (FDR) sector.

BYTE 16 End of File Offset. This is where you would place the byte count in the last sector of your file where you found the Hex FF. This is used by VARIABLE and PROGRAM type files to keep track of the end of useful info on the last sector of the file.

BYTE 17 Logical Record Length. This is either the length you specified when opening the file or a default value. Convert record length to Hex and place here.

BYTES 18-19 a) Number of Fixed Length Records or;
b) Number of Sectors used by Variable Length Records. If you have Fixed length records, then you'll have to go back to the sectors and count each record and place the Hex result here. Sorry about that. Make sure that if you are repairing a file as you read this; be sure you write this sector out before going back or you will probably lose the changes you already made to this sector.
If you are using Variable Length Records, specify the number of sectors used by your file (not including this one, of course). There are two bytes in this field and the value must have the bytes reversed before being placed here.

For example: Hex 100 sectors used equals Hex 00 01.

BYTES 20-27 Reserved. All zeros.

BYTE 28-255 This is the hard part. THE DATA CHAIN POINTER BLOCKS!!! This is where we tell the disk system where all the parts of our file is. When we finish discussing this block, we'll get into this section more.

If you look back at Byte 12, you may understand why a broken file comes up as a DISPLAY/FIXED 0 file. This is because a File type of zero indicates this kind of file and, since the rest of the sector is filled with zeros, the record length also comes up zero. Next time you see this on a disk catalog you'll know this is a broken file. I had a problem once when using the TEII module and downloading a file. It seems that no matter how many times I tried, the module would not close the file. Naturally, that's the filetype I saw every time I catalogued the disk. This was before I owned Advanced Diagnostics, and at the time, I didn't know what this meant.

Data Chain Pointer Blocks

Each block is a 3 byte (six Hex digits) group that indicates the starting sector of this block and an offset that indicates how many additional sectors make up this block. There are just two problems with this. The starting sector and the offset are intertwined and, if there are any blocks previous to this one, then the offset from the previous block is added to this one.

To untwine the sector info from the offset, copy down the first three byte value in three pairs of two hex digits. Now take the right digit from the center pair and place in front of the first digit of the first pair and take the left digit of the center pair and place it after the third pair of digits. You now should have a pair of three digit Hex numbers. The first number is the starting sector and the second is the offset. They are three digit values because you can express a value up to 4095 with three hex digits. Since there are only 1440 sectors on the most crowded disk the TI can handle, then this is plenty. Even a QUAD density disk would have only 2880 sectors.

So the starting sector is easy. It merely indicates the sector that this block starts on. The offset for the first block is the last sector of the first block minus the starting sector of that block. The offset for any

block after the first is the previous offset plus the additional sectors that this one provides to the file. Let' see. If we've got a program that starts at sector 39 and the first block ends at sector 41, then 41 minus 39 is 2. Even though sectors 39, 40 and 41 add up to three sectors, the offset is two. The next block starts at sector 46 and ends at sector 46, occupying one sector. The offset for this block is 3; 2 from the previous block and one for this block. Let's encode this data. Sector 39 is Hex 027 and the offset is 002.

```
SECTOR          OFFSET
  027             002
 0 27             00 2
   27   0   2     00
   27    20       00
```

So we place Hex 27 20 00 at bytes 28,29 and 30 in the FDR for our file. We'll encode the second block as follows:

Sector 46 is Hex 02E and our total offset is 003:

```
SECTOR          OFFSET
  02E             003
 0 2E             00 3
   2E   0   3     00
   2E    30       00
```

So we place Hex 2E 30 00 in bytes 31, 32 and 33. If we were to fill up the rest of the FDR with data chain pointers then we would have about 76 blocks of file data on the disk. Big file!

That just about covers the subject at hand. I'll include a sample program later on that will start writing a file on disk, but will quit before the file is closed. Then you can go through this lesson step by step and practice restoring the file. It will be written so that the data will be clearly visible on the disk in ASCII display mode. There will also be a program that will try to read the file back in once it is restored so you can see if your efforts were successful and also how much of the file you salvaged.

I don't know if you've noticed, but there are a few undocumented possibilities in Byte 12 of the FDR for other filetypes. I haven't had a chance to check this out, but if you feel adventurous you might try something out yourself. Just make sure that the disk you try it on doesn't contain anything you don't want to lose. Here are the listings to create and "CRASH" a file, and then to read the restored file:

```
100 OPEN #1:"DSK1.TESTFILE",DISPLAY, VARIABLE 80
110 A=INT(20*RND)+80
120 FOR B=1 TO 100
130 PRINT #1:"TEST #"&STR$(B)
140 PRINT B
150 IF B<>A THEN 170
160 CALL LOAD(-31804,36)
170 NEXT B
180 CLOSE #1
```

Requires Ext. Basic. If not available delete line 160 and press "QUIT" after you see 80 on your screen.

This program prints on disk "TEST #1","TEST #2" and so on to disk. This keeps up until the loop B equals a random number between 80 and 100, A.

When it does, the console resets to the main title screen. So save the program before running it. Then you can go step by step and see how much of the file can be restored.

This listing will try to read the restored file:

```
100 OPEN #1:"DSK1.TESTFILE",DISPLAY, VARIABLE 80
110 INPUT #1:A$
120 IF EOF(1) THEN 150
130 PRINT A$
140 GOTO 110
150 CLOSE #1
160 END
```

Versions of these programs were used to research this article. I hope you enjoy practicing with them. It it a little confusing at first, but if you go step by step, you should be successful. Have fun until (and of course, during) the meeting.

FULL DUPLEX

Irwin Goldstein

I am sitting down in the communications room watching the Users Group BBS and thinking about all the activity the board has seen over the past few weeks. For some reason (and I don't know what it is for sure), the BBS has been vertually nonstop from early morning to late evening. If I had to explain the reason, I could only guess that it is because within the past six months the board membership has risen from 225 to 437 members. This can cause a problem when trying to access the board and you constantly get a busy signal.

To make maters worse, it is rumored that "TI West" is closing down its computer for good at the end of this year. Undoubtedly, we will receive the traffic from that BBS.

I want to take this opportunity to say how disappointed I am to see TI West close down. I feel it was a top notch system and one of the best ever developed for the TI computer. The sysops state financial reasons are forcing the closing. Perhaps someone reading this article can figure a way to raise some cash for TI West.

While on the subject, I wish to explain some of the costs involved in operating a complete bulletin board system.

1. First, the cost of equipment, usually a one time cost but very heavy.
2. Phone line installation and monthly phone bill (approx $8.00 per month)
3. Electricity cost each month. (console, PE Box, External Disk Drive, printer, modem, monitor.) Operating at a 24 hrs each day, 7 days a week. Conservatively $20.00/mo.
4. Supplies for system (backup disks, printer ribbons, printer paper,

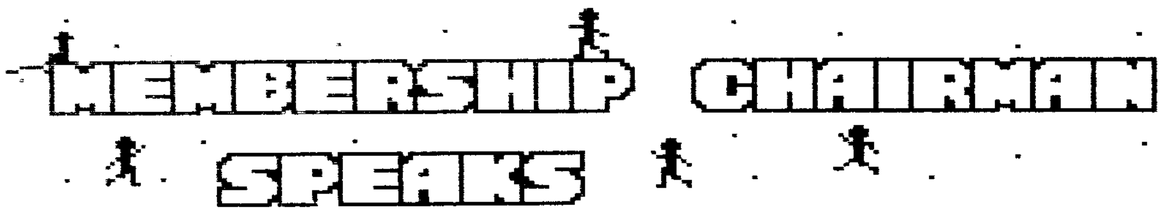
etc.) Approximately $5.00 per month.
5. Equipment upgrades (512K Myarc card, 1200 baud modem, corcomp controller card, DSDD drives, etc.) Budget $10.00 per month.

Total so far, approximately $42.00 per month or $504.00 per year. It is easy to see why so many BBS systems come and go within a few short months.

I am proud to say that the Chicago Ti Users Group Bulletin Board System has been around for more that 4 years now and with the financial backing of the users group, will continue to run for many more years.

The big news these days in the TI world is the upcoming 4th Annual Chicago TI Faire. It is coming along very nicely thanks to Sandy and Jon Bartels. If you need information about the Faire, call the Board. All Faire data is being brought up to date almost daily. The BBS is the best source of information about the Faire. You can even make hotel reservations by leaving a message on the BBS.

Well, that all for this issue of the newsletter. Remember, as always, if you are having a problem with any part of the board leave me, sysop, a message explaning the malfunction and it will be taken care of. See you on the Board and don't forget the magic phone number: 312-966-2342. We are open 24 hours each day, 7 days each week, 52 weeks each year. Even 7-11 can't say that!



Don Jones

Greetings and felicitations to all brothers and sisters in TI!

Well, the Faire is getting closer and I have less and less to say!

One thing that I will say to our local attending members is this: Please try and get your membership renewal fees to me before the Faire as I expect for a lot of out-of-town members to pay at that time. I also expect to sign up a lot of new members too. When you pay in person, please pay before the beginning of the meeting, instead of at the end, and please try to have a check. It is easier for Ken Knapp and me as it obviates the need for us writing you out a receipt. If that is inconvenient for you, your cash will be happily accepted. Also remember to make your checks out to the Chicago Area TI Users' Group and not to me. All present members (attending and non-attending members) may renew for $15.00 if they pay before January 1, 1987. After that time, the cost will be the full $18.00. Get a bargain by renewing now!

To our foreign brothers and sisters, I say, you too can get a bargain by renewing your memberships now. From now until December 31, 1986, the cost of your renewals will be $18.00. After that time, the cost will be $21.00. The extra $3.00 for is the additional postage cost to send your newsletters 1st class overseas airmail.

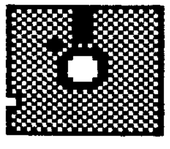
Hal Shanafield, a member of our group has **VOLUNTEERED** to work on the filling of our program library's tape orders. To me this is a very important job. I feel that it is important that we support those members who are still using the cassette tape medium for the purpose of program storage. It is by supporting them that we help to keep them with their machines. This will give them time to eventually convert to disk. Thanks for the help, Hal, and good luck. Tapes are so slooooooooooow in loading and saving.

I would also like to publicly thank Paul Farber for the time that he has put in trying to write a program that will sort my files of the group's names/address files. The chance to have a numeric listing of all of the group's members is fairly important to me.

I do hope that we do pull in a lot of new members at the Faire. It is my feeling that the more members we have, the stronger our group will be. The stronger we are, the more owners we can support. The more owners we support, the more customers for third party software and hardware. The more soft/hardware being sold, the more this encourages programmers and hardware developers to continue to create soft/hardware for our machine. The more things being created for our machine, the better the environment for our machine, and this benefits all of us. It keeps our machine alive, well, and running, contrary to popular belief.

Well, Sports Fans, this is it, believe it or not! I did say that I was going to keep this short. I hope to see you at the Faire. I also hope to see Texincia at the Faire. Rumor has it that she has a date with Lou Phillips when the Faire is over! I guess that it's pretty hard being a TI groupie!

SEE YOU AT THE FAIRE!!!



SOFTWARE REVIEW

Jack Topham

A 5$ donation and SAS mailer got me two neat programs from Steve Paterson. DM 1002 is not related to the DM1000 program but rather is Steve's version of a DISK utility. It will Catalog a disk, delete a file, sweep a disk, etc. It's unique utilitarian value is that it will convert any file to a different file type. For example D/V80 to D/F128. DM1002 will also allow you to combine any two files into yet another file type. Example: D/V80 + D/F128 as a D/V245 file.
The second program is FR1002 which allows you to read any file on disk to either a printer or the screen. This excellent file utility also lets you list the disk to see the file type that you want to read. Then you enter the file type and file name. The file is loaded into memory (16k ok) and then goes into Scroll mode. Up or down by line or page and sideways one column or screen width at a time. You can print to Printer or Disk as well. A first class job. I have uploaded both programs and their excellent DOCs on local BBS's. Don't forget the contribution: 2351 Ragan Wood, Toledo, OH 43614.

DCOPY is a super program that has been and is still on area BBD's which allows you to combine several related files into one for Archieval purposes. The one file uses less disk space than the separate files. Several of the BBD's are using this technique to keep a set of files together so you are sure of geting all the ones needed for a program when you download. DCOPY then separates them for use. DCOPY also has a file copy utility that works with all controllers. Look for DCOPY, a nice utility.

Home Computer Magazine went bust and out of the ashes came Home Computer Journal which will Fill out your HMC subscription. A rag at best along with a disk of questionable value. Some XB games and one interesting program called WORD WEAVE. WW allows screen pages to be written and related to other pages. Each page can take you to one of up to 4 next pages. Perfect for a family tree, or a fault isolation logic tree. It's sort of a special word processor. I am writing a story where you select how you want the story to proceed. One issue of HCJ is one Disk and is about $20 depending on the subscription length. A poor value when you compare it with Barry Travers GENEIAL TRAvlER Disk magazine at $30 for six issues. We have received two bonus disks already from Barry!
The last disk included an Xtended XBasic program that adds many additional CALL's to XB. 40 Col Text mode, BYE, NEW, RELOAD, WRITE, NOQUIT, NEWSET, KEYR, POKEC, POKEV, PEEKV, ETC, ETC, for a total of 25 NEW XB commands. Since XXB is disk based, Barry plans on adding to the list. GENIAL TRAVelER yes, HCJ why?.

EE BONDMASTER from REALESTAIE PROJECTIONS in SAN PEDRO allows you to record all your EE bond purchases and compute their worth now and at any future time. Printer output of course. Well done and worth a $10 donation. 409 ELBERON AVE, SUITE #2 SAN PEDRO CA 90731

A $10 donation to Steve Langguth will get you FRACTAL EXPLORER a program steeped in some heady math but easy and fun to use. The program creates multi-color fractal images and the ability to zoom in on any part and do further fractal explorations without limit. Color is used to depict shapes that lie part way between a line and a plane. sure? DOCS explain it all so be first on your block to explore fractals. 2965 S. Barnes, Springfield, MO 65804.

TEXAMENTS in New York sold me COMPANION #2 for TI ARTIST. My interest lay in an included utility that allows TI ARTIST instances to be used in Basic or XBasic programs. You can specify the LINE NUMBERS and INCREMENT in the saved file for later merging exactly where you want the picture to occur. ARTIST's CONNECTION worked exactly as advertised. My $16 got me two disks of instances and another dozen character fonts. Makes a good value for TI ARTIST owners.

A realy super program on the BBD's is RLE3 or RLEMAX. This assy program allows you to view and print and save to any of 4 std file formats including TIA and GRAPHX. It Loads and Runs Run Length Encoded graphics pictures automatically. RLE pictures are popping up everywhere. I have well over a hundred already. There are commercial scanners that generate RLE files from drawings, photographs, etc. so the variety and quality is fantastic. ASCII RLE files can be found on IBM, COMMIEDOOR, and other BBS down load sections. Try RLE3, it's our latest rage. Watch out for the FOXY LADY tho.

ASGARD Software is offering 24 GRAPHX Pictures and a program called SLIDE

SHOW for only $16.50! Slide Show loads automatically in XBasic and then proceeds to load and display one by one every GRAPHX picture on the disk. I have added SLIDE SHOW to all my GRAPHX picture disks so i can review them without having to load GRAPHX. For the artist, this is another good value. I really reccommend it!

J. PETER HODDIE has given ASGARD another winner called PRE-SCAN IT! XBASIC has a seldom used feature called prescan on/off. The default mode is pre-scan on so the entire Xb program is scanned for variables, CALLs, SUBs, etc before it RUNs. That takes time. If you are carefull to list all these at the beginning of your program where they can be quickly scanned, you can then turn off pre-scan and go to execution right away. Neat but troublesome for most. PRE-SCAN IT! does it all automatically and if you want it will replace REMS with a ! to save time and memory. Up to 5 variables can be reduced as well. All in all, a very useful utility. Using a stop watch I saw the scan time drop by 50%. It's guys like Peter that keep the ole 99 heat on. Thanx Peter.

Well I finally received MYARKs XBII and it works. Programs do run 3-5 times faster. TI ARTIST genius CHRIS FAHERTY wrote a demo for MYARK that is mind blowing. Speed, fantastic graphics, 40 col text mode, windows, etc. I guess it was worth the wait. I Will have more on XBII next month. Save your bucks for the Nov TI FAIRE. There will be plenty of super new software and Faire specials are expected.

Just arrived from Stu Olson via TI NORTH is vs 3.8 of the best terminal emulator now made better. 3.8 has 14k of buffer memory vs the old 11k. It allows you to set default vales of baud rate, etc and screen colors with any disk sector editor. Modifing the file for use on MYARK's RAM DISK is fully explained in the DOCS which are very complete. XMODEM, XMI, AUTO dial, HAYES and NOVATION compatable, MASS TRANSFER by Stu Olson is still #1 by me. Multiple file transfer, MXI, with auto hang up puts the 99 on top of the PC heap for telecommunications. It's yours for a $10 contribution or $5 if you donated for vs 3.5. What a deal! It's worth several times that. Say thanx to Stu with some green. His next project will of like quality, you can rest assured.

Finally, Barry Traver has given the TI99 world his ARCHIVER program as FREEWARE. This program is similar to DCOPY reviewed above. Works well and is on the club BBS as well as on TIWest. ARCHIVER allows you to restore any or all the files saved as a set. A $3 donation is suggested.

As you can see the 99/4A is far from dead. Next month I'll review MYARK's vs 2.1 XBII. It's here and it works!

PRACTICAL PROGRAMMING PRACTICES

MUSIC DEMO
by
John Hedstrom

Music Demo: Using the "RESTORE" Statement for Repetition

The first part of Beethoven's "FÜr Elise" contains two distinct melodies which are repeated as follows: 1st melody - 1st melody - 2nd melody - 1st melody - 2nd melody - 1st melody. Instead of including all of these note values in literal sequence (which would use up three times as many DATA statements), the program below illustrates how one can take advantage of repetitious passages. It repeats measures 1-8 (1st melody) and measures 10-16 (2nd melody) when necessary by pointing to the required DATA with the RESTORE statement. (For some reason something executes slower in Extended BASIC than in console BASIC and the breaks between repeated passages are more noticeable. All notes are raised an octave because of the TI's limited bass range.)

```
100 REM  "Fur ETise" (Beethoven)
110 REM  transcribed by John Hedstrom
120 REM  Friday/September 5, 1986
130 CALL CLEAR
140 CALL SCREEN(13)
150 Z=1
160 CALL CHAR(117,"0028004444444438")
170 S$="""Fur Elise"""
180 GOSUB 690
190 S$="(Beethoven)"
200 GOSUB 690
210 DIM F(57)
220 F(0)=44733
230 X=2^(1/12)
240 FOR L=0 TO 55
250 F(L+1)=110*X^L
260 NEXT L
270 N=48
280 GOTO 310
290 RESTORE 610
300 N=44
310 FOR L=1 TO N
320 READ A,B
330 CALL SOUND(235,F(A),2,F(B),2)
340 NEXT L
350 IF N=48 THEN 290
360 RESTORE 610
370 N=10
380 GOTO 410
390 RESTORE 810
400 N=44
410 FOR L=1 TO N
420 READ A,B
430 CALL SOUND(235,F(A),2,F(B),2)
440 NEXT L
450 IF N=40 THEN 390
460 Z=Z+1
470 IF Z=2 THEN 360
480 CALL SOUND(940,F(37),0,F(28),0,F(1),0)
490 STOP
500 REM  measures 1-9
510 DATA 44,0,43,0
520 DATA 44,0,43,0,44,0,39,0,42,0,40,0
530 DATA 37,13,37,20,0,25,28,0,32,0,37,0
540 DATA 39,8,39,20,0,24,32,0,36,0,39,0
550 DATA 40,13,40,20,0,25,32,0,44,0,43,0
560 DATA 44,0,43,0,44,0,39,0,42,0,40,0
570 DATA 37,13,37,20,0,25,28,0,32,0,37,0
580 DATA 39,8,39,20,0,24,32,0,40,0,39,0
590 DATA 37,13,37,20,37,25,37,0
600 REM  measures 10-16
610 DATA 37,13,37,20,0,25,39,0,40,0,42,0
620 DATA 44,16,44,23,44,28,35,0,45,0,44,0
630 DATA 42,13,42,23,42,27,33,0,44,0,42,0
640 DATA 40,13,40,20,40,25,32,0,42,0,40,0
650 DATA 39,8,39,20,0,32,32,0,44,0,0,37
660 DATA 0,44,44,0,56,0,0,43,0,44,43,0
670 DATA 44,0,0,43,0,44,43,0
680 REM  typing subroutine
690 N=LEN(S$)
700 X=(32-N)/2
710 FOR L=1 TO N
720 C$=SEG$(S$,L,1)
730 C=ASC(C$)
740 IF C=32 THEN 760
750 CALL SOUND(1,-6,0)
760 CALL HCHAR(18,L+X,C)
770 NEXT L
780 PRINT :::
790 RETURN
800 END
```


MULTIPLE IF'S: Ollie Hebert

IF you have a CorComp disk controler card THEN IF you have an older CorComp RS232 card THEN IF you are having the problem of not getting the title screen when you should THEN READ this item ELSE GOTO the next newsletter item.

A competent and very helpful technician at CorComp told me (when I 'phoned my problem in) that replacing the 100k resistor on the RS232 card (next to the 9901 chip) with a 1.5k 1/4w 5% resistor should correct my problem. It did. IF there is the tiniest chance that you may do something wrong THEN ship your RS232 card to CorComp for the update ELSE proceed with the resistor change at your own risk.

IF the above instructions are too brief OR IF you don't know the resistor color codes OR IF you can't recognize a 9901 chip OR IF you aren't competent in circuit board repair THEN don't attempt the resistor change :: LET CorComp do it. :: ! A slip up will be very expensive.

MONTHLY FINANCIAL REPORT: Len Rovner

CHICAGO AREA TI99/4A USERS GROUP
SUMMARY OF CASH TRANSACTIONS
SEPTEMBER 5-16, 1986

	TOTAL	FAIRE	LIBRARY	MEMBER-SHIP	OTHER
RECEIPTS	1,844.00	600.00	429.00	486.00	329.00
DISBURSEMENTS:					
MAILING	288.07	117.05	86.85	82.88	1.29
NEWSLETTER-PRINTING	1,132.45				1,132.45
OTHER-PRINTING	69.30	12.55		56.75	
BULLETIN BOARD	40.00				40.00
SUNDRY	9.20				9.20
	1,539.02	129.60	86.85	139.63	1,182.94
NET INCREASE IN CASH	304.98	470.40	342.15	346.37	-853.94

THE CHICAGO TI USERS GROUP PROUDLY PRESENTS

TI FAIRE 1986

Our Fourth Annual TI Faire will be held on Nov.1 1986 at Triton College in River Grove, Ill. General admission will be $2.00. Last year we had over 2,000 attendees.

For further information write to The Chicago Area TI99/4A Users Group, P.O. Box 578341, Chicago, IL 60657.

CHGO. TI99/4A USERS GROUP

PRESENTS THE

4TH ANNUAL

TI FAIRE

TRITON COLLEGE

2000 5TH AVE

RIVER GROVE, IL

Nov. 1ST

9 TO 6

GUEST SPEAKERS

VENDORS

DOOR PRIZES!

CHICAGO TI USERS GROUP

SEMINARS

FOR INFO ON THE FAIRE
OR ON GROUP MEMBERSHIP:
CHGO. TI USERS GROUP
P.O. BOX 578341
CHGO. IL 60657

GEN. ADM. 2.00

TI FAIRE UPDATE

FROM THE FAIRE CHAIRWOMAN

— Sandy Bartels —

CHICAGO-FAIRE NEWS UPDATE 9/11/86

The Chicago-Area TI-99/4A User's Group is proud to announce it's fourth annual TI-99/4A Computer Faire. Come to our Faire and see the latest software, (Games, Educational and Business Programs) and hardware now available for the TI-99/4A, including a new version of the TI99-computer that has been developed by MYARC, INC. ASGARD announced that they are coming to the Faire with a new graphics & text product for the TI-99/4A that will rival the graphics on the MacIntosh. TENEX will be at the Faire demo-ing the the latest products available from CORCOMP. The TI-Faire Committee & PC-PURSUIT is happy to announce that only those people attending this year's TI- Faire will be able to join the economical PC-PURSUIT long distance telephone service without the normal $25 sign up fee. This is an unusual development and could make it difficult to keep the IBM-PC people away from our Faire. Come and be a part of the on-going learning experience by attending the free seminars to be held during the Faire.

The following is a list of vendors that have acquired booth space at this years' Chicago TI-Faire:

Asgard Software	Rockville	MD
BBS Computer Sales	Sheldon	IL
C and G Drives	Northbrook	IL
Competition Computer	Milwaukee	WI
Computer Download	Arnprior	ONT
Data Systems	Oxnard	CA
Databiotics	Greenfield	WI
Databionics	DiamondBar	CA
Great Lakes Software	Howell	MI
Horizon Computer Ltd	Wallbridge	OH
Hunter Electronics	Elmhurst	IL
L.L. Conner Ent.	Lafayette	IN
Micro Format	Prospect Hts	IL
MYARC, Inc.	Basking Rdge	NJ
PC Pursuit	?	WV
Ryte Data	Haliburton	ONT
Tenex	?	IN
TI Forum (Compuserve)	?	OH
Tigercub Software	Whitehall	OH
Trio Software	Liscomb	IA

THIS LIST HAS ACQUIRED MORE THAN 3/4 OF THE BOOTH SPACE NOW AVAILABLE. IF YOU INTEND TO RESERVE A BOOTH FOR THE FAIRE, PLEASE DO IT SOON, SO THAT YOU ARE NOT DISSAPPOINTED.

The Chicago-Area TI-99/4A User's Group invites you to attend this year's Faire being held on Saturday, November 1, 1986, between 9:00 A.M and 6:00 P.M., at Triton College Campus 2200 N. 5th Ave. in the Ironwood Room of the Student Center. Triton is located 1/4 mile north of Maywood Park race track in River Grove, Illinois. There will be a $2.00 admission charge.

If you are unable to attend this year's Faire, you may still participate in this resurgence of interest in the TI-99/4A computer, by joining the Chicago-Area TI-99/4A User's Group. For further info contact: The Chicago-Area TI-99/4A User's Group Attn: Membership Chairman P.O. Box 578341 Chicago, IL. 60657.

WHAT: The Chicago-Area TI-99/4A User's Group Computer Faire

WHERE: Triton College - 2200 N. 5th Ave. River Grove, IL.

WHEN: Saturday November 1, 1986 - 9:00 A.M. to 6:00 P.M.

For more information write to the Chicago-Area Users' Group, Attn: Faire Committee, P.O. Box 578341 Chicago, IL. 60657, or you may call our member Grant Schmalgemeier at (312) 477-0690 between 10:00 PM to 11:30 PM Central Time. For motel reservations close to the Faire call our member Thomas Kaar at (312) 579-0072 from 4:30 PM to 10:00 PM Central Time. Take care you don't miss the Chicago TI-99/4A Faire.

For those of you who just can't get enough TI-99/4A information and opportunities to purchase new products, the Chicago Faire Committee is pleased to announce a TI-99/4A Faire in Milwaukee on Sunday the day after the Chicago Faire on November 2, 1986 from 9:AM to 4:PM. For more information on the Milwaukee TI Faire please contact Don Walden at P.O. Box 244, South Milwaukee, Wi 53172 or call him at 414-529-5161.

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library shelf

— Bob Demeter —

Funlwriter 3.3 anyone? Did we have a great Sept. meeting or did we have a great Sept. meeting? Triton College (not to be confused with the catalog) seemed to be bursting full of goodies that day. Thanks Paul for the outstanding job you did demoing Funlwriter 3.3. The crowd for Funlwriter after the meeting was awesome. I think we sold 40+ copies. That just shows to go ya, TI users are bursting at the seams for great programs. All please remember, Funlwriter is Fairware and the boys down under would apperciate your donations.

For those of you not in attendance or that missed the list I had displayed, there are a few NEW programs in the Fairware library. They are:

ARCHIVER version 1.2 by Barry Traver. This is an Xbasic program file combiner. It will take all or most all the files to a particular program and archive into one name. Version 1.2 features: 1)"pack all files? option 2) TI,Corcomp and Myarc disk controller compatable 3) 12.5 K buffer 4) Selective single file unpacking. ($2.00)

COMBINE by Nick Iacovelli Jr. This is an Editor Assembler version of a program files packer. With it you can take a program with several files and store it all under one filename. Great for up/downloading to a BBS. Use E/A option 3. ($2.00)

DM1000 version 3.3 by Bruce Caron of the Ottawa Users Group. This is a full featured Disk Manager. It has all the options you'll ever want plus more. Something on the order of the Corcomp Manager only better. Contains various options to initialize a disk, clean up messy files, etc. You can even run program image files with it. ($2.00)

ENVELOPE by Roger Wilson. Change the program lines to your return address. Then, run the program. It will ask questions about the Addressee. Next it will either print out to a long or short envelope. A long envelope would be a business size. Runs in Xbasic. ($2.00)

FAS-IRAN by Bill Harms. Bill has come up with a better way of keeping track of your check book. It keeps track of each check, where it went and for how much. Also keeps running monthly and annual totals. This is a 2 disk set. 2 other programs are included on disk. ($3.00)

FUNLWRITER version 3.3 from Tony Will McGovern. The boys from down under pulled out all the stops for this one. This is turely one of the best programs to come out for the TI in a long time. Not only is it an Xbasic word processor but it's an Editor/Assembler too. This program contains a disk manager, a sector editor, a "c" compiler, a terminal program loader and much much more. You must see it to believe it. We have it on 2 single sided disks. Pick 1 up today. ($3.00)

MASSTRANSFER version 3.8 by Stu Olson. This is Stu's latest version of his famous whole disk transfer program. But it's much more then that. It is also a xmodem terminal program for use on BBS's. Features include a phone directory for use on a auto/dial modem. $2.00

I also have some corrections to mistakes I made while writing the article for the summer issue. PR BASE and SPRITE BUILDER are both on 2 single sided disks. For this reason, the cost of each of these programs is $3.00. Also in a way of a correction but on a sad note, I must advise you of 2 deletions from the library. Don Thomson of Thomson Software has sold the copyrights to DISK + AID, MEMORY MANIPULATOR and CREDIT CARD MANAGER. The 2 formmer programs were released to user groups as freeware. The new copyright owner will no longer honor that agreement. I am now forced to remove DISK + AID MEMORY MANIPULATOR from the Fairware library.

I am happy to announce that Commodore Theater has been added to the regular library. For those of you that missed it, better get a copy quick. This is one that no TI owner should be without. As a matter of fact, I think commodore owners should have one too. Also added to the library is John Behnke's updated version of RAT RACE. Just like going to a horse race. You decide how many races will be run and the amount

of your wager. I can't remember the names of all the mice, but I'm still pulling for Limburger in the 3rd. For those of you that were wondering about the beautiful graphics program I demoed at the last meeting, it's on disk 65. The program is call GRAPHIC. This is just a taste of some of the beautiful graphic designs you can make with the new Xbasic II from Mechantronics.

Other programs added to the regular library include:

SCLOAD version 4.1 This is John Birwell's latest version of the Supercart loader program.

GOKP- This is for those that have the Gram Kracker. Load it into gram 1 and you have a 16 digit keypad. Hold the "ctrl" key to activate.

KEYPAD/TEX- This is the tutorial on how to edit gram 0 to make and use the 16 digit keypad.

XPREP- A program to change DV 128 files to DV 80 and visa versa.

DCOPY- Another program archiver and copier.

JOYST/TEST- A program to test both joysticks including the fire button. The output will be a graphic screen display.

DSK-SEC/TK A one page programming aid chart. This chart will show disk track and sector arrangement for SS/SD to DS/DD formats. It will show it in dec and hex. It will also show sector interlace for both SD and DD.

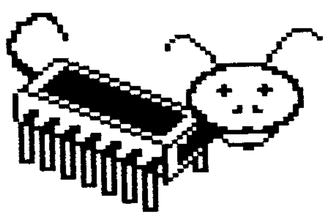
You can look for these programs at the next meeting.

The numbers are in. Here is the list of the top 5 disks from the regular library and the fairware library.

#1 Disk 65
#2 Disks 21,35,42,45,46,47, 48 all tied
#3 Disks 13,18,49, 57 all tied
#4 Disks 8,15,25,29 36 all tied
#5 Disks 24,26, 63 all tied.

#1 FUNLWRITER
#2 TI-REWRITE
#3 SCREENDUMP
#4 TIW/Multiplan Update
#5 MASSTRANSFER
#5 NEATLISTER
#5 FASTERM

In ending, I'd like to thank all those that made the summer a big success. For without you the member we could not be. THANKS!!



RAM BUGS

Texincia Lubbock

SPORTS FANS!?!? What TRAINING CAMP is *DON JONES'* head in? Does he think the *BEARS* are going to play football with the memory expansion card? Does he think *JIM McMAHON* is going to sport a *"MYARC" HEADBAND* at this season's games? Or is he still saddened by the elimination of the *CUBS* from any playoff action? OR!, is a *SPORTSFAN* some new type of CEILING FAN that has helmets attached to the ends of the blades? Or is *"SPORTSFANS"* one of the left over phrases that he liked from his *CREATIVE WRITING* courses at *the UNIVERSITY of LANSONAMY*? (located just outside Racine, Wisconsin along scenic Route I-94).

It's a good thing we have *SANDY BARTELS working on the FORTH ANNUAL TI-FAIRE*. *SANDY* already has better than 30 exhibitors lined up with new booth applications arriving daily. Good work, *SANDY*, you're a real tribute to the fact that an *ORPHANED MACHINE* doesn't have to hide in a dark closet somewhere!

RUMORS, RUMORS, RUMORS, and more RUMORS! First, *LOU PHILLIPS* (of *MYARC* fame) promised us production and shipping of *GENEVE* - *"NO LATER THAN THE END OF JULY"*. THEN, a rumor leaked about *MECHATRONICS of GERMANY* producing an *IBM/TI COMPATIBLE* (that's an *IBM* compatible with an expansion card to provide compatiblity with *TI* software and cartridges). NOW I've even heard someone talking about the *POSSIBILITY* of *TI* themselves returning to production of this or a like machine!! (Remember the HORRORS of trying to call 1-800-TI-CARES? It's even rumored that that phone number is still working.)

Seems the only ones we haven't heard from in this round of the *RUMOR MILL* are *GARY KAPLAN* (of *HCM* fame), and *SAM PINCUS* (of dunk tank fame, here, SAM, here, SAM!) I wonder if the *GUINESS BOOK OF WORLD RECORDS* will give the *TI* the status of having the MOST RUMORS EVER CIRCULATED about an *ORPHANED COMPUTER*? (See if they want a booth at the *FIARE, SANDY*.

Speaking of *MECHATRONICS of GERMANY*, they MAY just be THE company to watch! I will be anxiously sitting in the front row of the next meeting when *HANK ELLERMAN* demonstrates their *GRAM CARD*. This card is touted as the *"MOST INNOVATIVE EXPANSION CARD EVER DESIGNED FOR THE TI"*, and is said to be capable of even writing its own software. My, how far artificial intelligence and advertising copy-writers have progressed! *MECHATRONICS of GERMANY* has a number of other products available for the *TI*. Hopefully they'll all be as worthy as the *GRAM CARD* in their capabilities. (Sell 'em a booth for the FAIRE, SANDY!)

I trust everyone enjoyed the demonstration of the *COMMODORE THEATER* program at the last meeting as much as I did. The graphics are wonderfully done, and the author, whomever she may be, did an excellent job of showing the pitiful shortfalls of the overly promoted and priced piece of junk.

COMMODORE: *n* the senior or commanding officer of more than one ship or yacht; in the US Navy, a rank next above Captain; as computers go, a very slow computer.
COMMODE: *n* a small bedside cupboard; *slang* a toilet.
COMMODORE THEATRE: *allogrythes* designed to identify the *COMMODORE (COMPUTER)* as the true *COMMODE* it really is.

Copies of the *COMMODORE THEATER* are available for downloading from the *CHICAGO TI-USERS GROUP'S BBS* at 312-966-2342 or from the *LIBRARY* at any meeting.

Was that REALLY *LARY McMAHON - A.K.A. "the KING OF THE APPLES"* that rolled into the *FIRESIDE LOUNGE* before the last meeting? What's the matter, *LARY*, not enough ADULT INTEREST in the *APPLE ORCHARD* lately? Or, were you just rolling around, immitating an apple that has fallen to the floor of the forest as they do every autumn.

I'm a little disappointed in the *DRAW TEXINCIA CONTEST* interest we've received so far. The postman has only delivered two sacks of entries to *CAROLE*. Please refer to the *SUPER SUMMER ISSUE* for the contest rules. I think we may have the *EXECUTIVE BOARD* talked into a *CRUISE TO ALASKA* as the *GRAND PRIZE* for the contest. Remember, enter early and often. The contest is based on ORIGINALITY, not AUTHENTICITY. See you at the meeting, it should be an interesting one.

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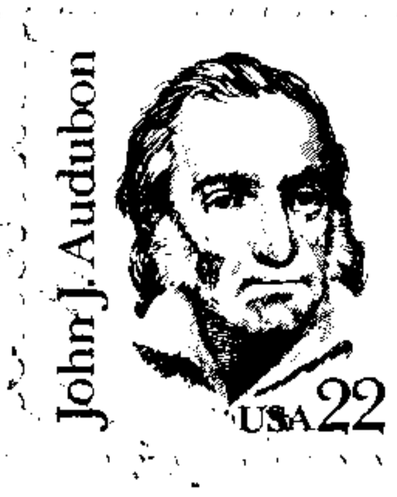

REMarks: Carole Goldstein

Although this issue contains lots of useful information, it is noticably shorter than usual. I am trying to keep to a submission deadline of the 15th of each month. Especially since we are looking into a bulk mailing of the newsletter which will add some days to the delivery time. We intend to try this shortly after the FAIRE. We are doing this to try to conserve funds. This publication has gotten rather expensive. I encourage everyone who submits items to get them to me at the earliest possible date. It helps all of us in receiving our newsletters on time.

Also, some of the people that regualary submit articles have been spending a lot of their time getting ready for the FAIRE. It takes a lot of preparation to get ready for an extraveganza like this. The wheels have already been in motion for about six months and there are still many last minute details to take care of.

Dave has a unique idea for this FAIRE and to implement it we need some help from some of you out there. We are trying to round up as many early TI and third party peripherals as possible for an exhibit the day of the FAIRE. If you have anything that is unique, that was produced at one time or another for our machine in its early days, please leave contact Dave Wakely or me. We also need a lighted locking display case if anyone has access to it. Thanks in advance for your help.

This promises to be the best and biggest event for the TI world yet. Make plans to be there Nov 1st from 9:00 am to whenever.